

Getting It Wrong: Comment on Moore's "Behaviorism and the Stages of Scientific Activity"

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I was sorry to see that Moore's (2010) illogical attack on the matching law was published by *The Behavior Analyst*. Moore begins by attacking the psychophysical power law because he claims it is based on mentalism. One may argue about theory, but one cannot argue with data. Whatever theories S. S. Stevens and others may have proposed to explain the power law, the procedures (e.g., magnitude estimation and production) produce reliable data that conform to the power function. The finding has been replicated in many laboratories all over the world. Moreover, the exponent (slope in logarithmic coordinates) is reliably different for different sense modalities. To dismiss these robust uniformities because someone proposed a theory about them that was erroneous or untestable is throwing the baby out with the bathwater.

Moore's attack on the generalized matching law is similarly problematic. The illogic of his argument should be obvious. He begins with the premise:

1. The psychophysical power law was based on mentalism.

Therefore:

2. Some power laws are based on mentalism.

He then proceeds (illogically):

3. The generalized matching law is a power law.

Therefore:

4. The generalized matching law is based on mentalism.

If Premise 2 stated "all" instead of "some," Conclusion 4 would be warranted, but the "some" makes the conclusion invalid.

Equally obvious, the generalized matching law is in no way based on mentalism. You will find no mentalism in Herrnstein's (1961) original report nor in my papers laying out the generalized form. It is a robust finding, replicated in many laboratories and in many species. Moreover, the exponent (slope in logarithmic terms)—sensitivity—varies systematically with a number of factors, most notably changeover requirements. Again, to dismiss a well-replicated finding because someone may have proposed a theory about it that is erroneous or untestable makes no sense.

Whether the matching law fits into Stage 2 or Stage 3 of scientific progress is a matter of little interest, because the distinction has little validity in practice. Some researchers, such as Rachlin (1971) and McDowell (2005), for different reasons, have proposed that matching might be conceived as a theory of behavior. Others see the matching law as descriptive (Baum, 1979; Jensen & Neuringer, 2009; McSweeney, Farmer, Dougan, & Whipple, 1986). Which view prevails will only become clear with more experimental and theoretical work. It is clear, however, that any comprehensive theory of behavior will have to explain why matching occurs.

Moore received this feedback when he submitted a version of this paper to another journal. Even though it was rejected there, he went on repeat the errors in the present paper.

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